

Claim Amendments

1. (Currently amended.) A wire mesh engine exhaust particulate filter, comprising: a knitted wire mesh sock having a longer dimension and a shorter dimension, folded along the longer dimension so that the shorter dimension is effectively halved, and tightly rolled into a spiral geometry while maintaining a relatively low density, the mesh made from a high temperature resistant alloy.

2. (Currently amended.) The filter of claim 1, wherein the wire is comprised of a high temperature alloy type 304, type 309, or type 310 stainless steel.

3. (Original.) The filter of claim 1, wherein the spiral has no central opening.

4. (Currently amended.) The filter of claim 1, wherein the spiral has a central opening.

5. (Original.) The filter of claim 1, wherein the wire is electrically conductive.

6. (Currently amended.) A regenerable particulate trap for an engine exhaust having a wire mesh filter, the filter being regenerated by resistive heating, wherein the improvement comprises a wire mesh filter, comprising: a knitted wire mesh sock having a longer dimension and a shorter dimension, folded along the longer dimension so that the shorter dimension is effectively halved, and tightly rolled into a spiral geometry while maintaining a relatively low density, the mesh made from a high temperature resistant alloy.

7. (New.) The particulate trap of claim 6, wherein the trap is positioned in the exhaust so that the fold is the leading edge in the exhaust stream.